United States Environmental Protection Agency
Region 9 Laboratory

1337 S. 46th Street Building 201
Richmond, CA 94804

Date: **9/15/2017**

Subject: **Analytical Testing Results - Project R17E01**
SDG: 17243B

From: **Peter Husby, Director**
EPA Region 9 Laboratory
EMD-3-1

To: **Janice Chan**
Enforcement Division, Air Section
ENF-2-1

Attached are the results from the analysis of samples from the **Catalytic Converter Analysis FY2017** project. These data have been reviewed in accordance with EPA Region 9 Laboratory policy.

A full documentation package for these data, including raw data and sample custody documentation, is on file at the EPA Region 9 Laboratory. If you would like to request additional review and/or validation of the data, please contact Eugenia McNaughton at the Region 9 Quality Assurance Office.

If you have any questions, please ask for Peter Husby, the Lab Project Manager at (510)412-2300.

Electronic CC: Matt Salazar, ENF-2-1
Andrew Zelling, Nathan Dancher, ENF-2-1
Elfego Felix, Kingsley Adeduro, ENF-2-1

Analyses included in this report:

Platinum Group Metals by XRF

United States Environmental Protection Agency
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1337 S. 46th Street, Building 201, Richmond, CA 94804
Phone:(510) 412-2300 Fax:(510) 412-2302

Project Manager: Janice Chan	**Enforcement Division, Air Section**	**SDG:** 17243B
Project Number: R17E01	**75 Hawthorne Street**	**Reported:** 09/15/17 10:12
Project: Catalytic Converter Analysis FY2017	**San Francisco CA, 94105**	

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Collected	Date Received
LWGGCGL04HA007789	1708088-01	Solid	08/29/17 00:00	08/31/17 11:25

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Enforcement Division, Air Section
75 Hawthorne Street
San Francisco CA, 94105

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Sample Results

Analyte	Reanalysis / Extract	Result	Qualifiers / Comments	Quantitation Limit	Units	Batch	Prepared	Analyzed	Method
Lab ID: **1708088-01**									**Solid - Sampled: 08/29/17 00:00**
Sample ID: **LWGGCGL04HA007789**									**XRF Analysis of Platinum Group Metals**
Platinum		1,200		160	mg/kg	B17H152	09/12/17	09/13/17	XRF
Palladium		5,600		40	"	"	"	"	XRF
Rhodium		1,400		40	"	"	"	"	XRF

Quality Control

Analyte	Result	Qualifiers / Comments	Quantitation Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch B17H152 - - General Biology - Platinum Group Metals by XRF										**Prepared: 09/12/17 Analyzed: 09/13/17**
										XRF Analysis of Platinum Group Metals - Quality Control
Blank (B17H152-BLK1)										
Platinum	ND	U	160	mg/kg						
Palladium	ND	U	40	"						
Rhodium	ND	U	40	"						
Blank (B17H152-BLK2)										
Platinum	ND	U	160	mg/kg						
Palladium	ND	U	40	"						
Rhodium	ND	U	40	"						
Reference (B17H152-SRM1)										
Platinum	730			mg/kg	697		105	85-115		
Palladium	280			"	326		86	85-115		
Rhodium	51			"	51.2		100	85-115		
Reference (B17H152-SRM2)										
Platinum	1,200			mg/kg	1130		103	85-115		
Palladium	230			"	233		98	85-115		
Rhodium	140			"	135		106	85-115		
Reference (B17H152-SRM3)										
Platinum	1,700			mg/kg	1780		98	85-115		
Palladium	280			"	279		101	85-115		
Rhodium	350			"	338		102	85-115		
Reference (B17H152-SRM4)										
Platinum	750			mg/kg	697		107	85-115		
Palladium	290			"	326		88	85-115		
Rhodium	53			"	51.2		104	85-115		
Reference (B17H152-SRM5)										
Platinum	1,200			mg/kg	1130		105	85-115		
Palladium	230			"	233		100	85-115		
Rhodium	140			"	135		105	85-115		
Reference (B17H152-SRM6)										
Platinum	1,700			mg/kg	1780		98	85-115		
Palladium	280			"	279		101	85-115		
Rhodium	360			"	338		106	85-115		

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Qualifiers and Comments

U	Not Detected
NR	Not Reported
RE1, RE2, etc:	Result is from a sample re-analysis.

VIN Number	Engine Family	SAMPLE ID	Catalyst Type	Substrate Len.	Substrate Dia.	Substrate Vol.	Substrate Area	Cells	CPSI
				(cm)	(cm)	(cm^3)	(in^2)	#	
LWGGCGL04HA007789	HCQHS.0981HS	1708088-01	Honeycomb	3.00	4.00	37.7	1.95	798	409

VIN Number	Engine Family	SAMPLE ID	Pt	Pd	Rh	Ratio	Active Material
			mg/Kg	mg/Kg	mg/Kg	Pt:Pd:Rh	Loading (g/ft3)*
LWGGCGL04HA007789	HCQHS.0981HS	1708088-01	1166	5557	1389	1:5:1	48

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF
ENFORCEMENT AND
COMPLIANCE ASSURANCE

I, Janice Chan (Name) of USEPA (Business/Agency) hereby certify I removed the following item; Exhaust system. I marked the item with:
VIN or ESN: LWGGCGL04HA007789
The item is from Entry No.: 9AR-0282069-4 Date Removed: 8/29/2017
From a: 2017 (Year) Hisun Motors Corp. (Make) CK1000-S (Model)
Allegedly covered by USEPA Engine Family: HCQHS.0981HS (Engine Family).
I further certify on 8/30/17, I secured the described item prior to shipping it.

CHAIN OF CUSTODY

Released By:	Date and Time	Received By:	Date and Time	Remarks
Name: F-GONZALEZ	8/30/17 1000	Name: Janice Chan	8/30/17 1015	
Organization: CBP	Seal Intact? Y,N, Comment	Organization: USEPA	Seal Intact? Y,N, Comment	
Signature:		Signature:		
Name: Janice Chan	8/30/17 14:50	Name: Lunami Avelo	8/31/17 11:25	
Organization: USEPA	Seal Intact? Y,N, Comment	Organization: USEPA	Seal Intact? Y,N, Comment	
Signature:		Signature:		
Name:		Name:		
Organization:	Seal Intact? Y,N, Comment	Organization:	Seal Intact? Y,N, Comment	
Signature:		Signature:		
Name:		Name:		
Organization:	Seal Intact? Y,N, Comment	Organization:	Seal Intact? Y,N, Comment	
Signature:		Signature:		
Name:		Name:		
Organization:	Seal Intact? Y,N, Comment	Organization:	Seal Intact? Y,N, Comment	
Signature:		Signature:		

Version: July 2015

Cooler/Box/Env 1 of 1

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Sample Receipt Checklist

Note in WO memo any items outside acceptable limits.

Project No: R17E01 Work Order No(s): 1708088 Date: 08/31/17 by: IA

CUSTODY SEALS Are Intact? ..... □ Yes □ No ☒ N/A- None

Check if applies: □ External Seals □ Internal Seals □ Hand Delivered

TEMPERATURE 22 °C

Within Acceptable Range? (If preservation is "store cool at 4°C," use 0-6°C for acceptable range.) □ Yes □ No ☒ Ambient OK

Measured by: ☒ IR thermometer □ Probe thermometer inserted in provided temp. blank

□ Provided Temp Blank was not used because _____

Check if applies: □ Sufficient ice present □ Still cooling (sampled today & iced)

□ Insufficient/Melted Ice □ Delivery Delay □ Previously Frozen

SAMPLE CONTAINERS Are Intact? ..... ☒ Yes □ No

Check if applies and identify sample IDs in comments:

□ Bottle/Jar/Vial broken □ Cap broken or loose □ Insufficient sample amount

□ Other _____

CHAIN OF CUSTODY

COC forms are present? ..... ☒ Yes □ No

COC forms are complete and consistent with sample labels? ..... ☒ Yes □ No □ N/A-no COC form

Check if applies: □ Not relinquished □ Inconsistency resolved □ Follow-up needed (see comments)

TAT and analyses match TDF or scheduling? ..... ☒ Yes □ No

Check if applies: □ Preliminary Results □ Rush Request □ 7-day TAT

Samples are received within hold times? □ Expires today ..... ☒ Yes □ No □ N/A-no hold times

All shipping and sample containers are accounted for? ..... ☒ Yes □ No

PRESERVATION / FILTRATION Is Required? ..... □ Yes ☒ No

If yes, continue below. If no, mark N/A for the following:

Samples were preserved and/or filtered in field? ..... □ Yes □ No ☒ N/A

If no, check if applies: □ Analyst to filter and/or preserve □ Sample Receiving to preserve (see page 2)

If yes, preservation and/or filtration are correctly identified on samples? ..... □ Yes □ No ☒ N/A

If yes, field-preserved samples (non-VOA vials) have correct pH? ..... □ Yes □ No ☒ N/A

Metals: pH <2 □ HNO_3 Sulfide: pH >9 □ NaOH/Zinc acetate Cr6: pH >8.5 □ _____

Ferrous Iron: pH <2 □ HCl Cyanide: pH >12 □ NaOH (if <8.5, must be adjusted to 8.5-9.5)

TOC/DOC: pH <2 □ H_2SO_4/H_3PO_4 (HCl is not allowed for available instrumentation [i.e., problem])

Ammonia /NO3/NO2/TKN /Phosphorus: pH <2 □ H2SO4 Other: _____

FOLLOW-UP / COMMENTS / UNUSUAL CHARACTERISTICS OBSERVED (for example, sample is pink):

FORM #: Q016
REV #: DRAFT
REV. DATE: 8/22/17